

CAS ONLINE PRINTOUT

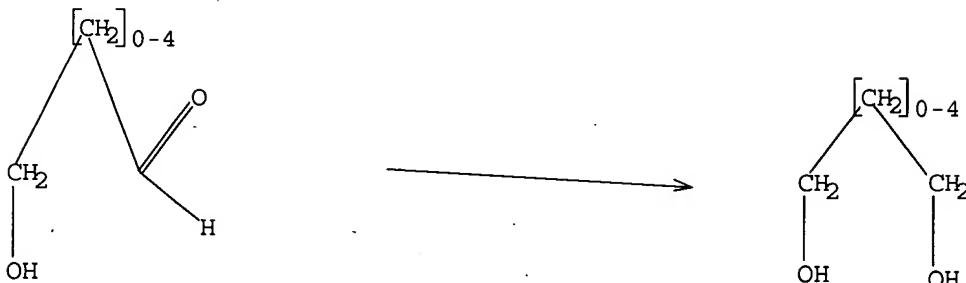
=> d his

(FILE 'CAPLUS' ENTERED AT 10:12:06 ON 30 JAN 2007)  
DELETE HIS

FILE 'CASREACT' ENTERED AT 10:47:56 ON 30 JAN 2007  
L1 STRUCTURE UPLOADED  
L2 7 S L1  
L3 1278 S L1 FUL  
L4 11411 S HYDROXIDE?  
L5 40 S L4 AND L3  
L6 STRUCTURE UPLOADED  
L7 0 S L6  
L8 SCREEN 1006  
L9 SCREEN 2016 OR 2021 OR 1838  
L10 STRUCTURE UPLOADED  
L11 QUE L10 AND L8 NOT L9  
L12 0 S L11  
L13 23 S L11 FUL

=> d l10

L10 HAS NO ANSWERS  
L10 STR

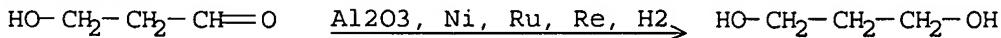


Structure attributes must be viewed using STN Express query preparation.

=> d fcrcdref 1-23

L13 ANSWER 1 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



REF: U.S. Pat. Appl. Publ., 2006241325, 26 Oct 2006

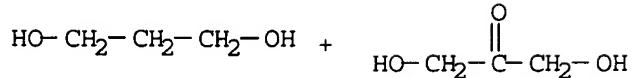
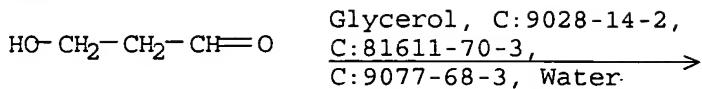
CON: 1897 hours, 50 - 150 deg C, 8.47 MPa

L13 ANSWER 2 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

Search by Starts  
1/30/2007  
10/676882

## CAS ONLINE PRINTOUT

RX(1) OF 1



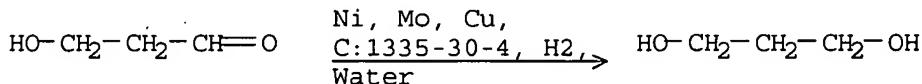
REF: Faming Zhuanli Shengqing Gongkai Shuomingshu, 1840668, 04 Oct 2006

NOTE: enzymic, biotransformation, Tris-HCl buffered solution

CON: 10 minutes, 45 deg C

L13 ANSWER 3 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



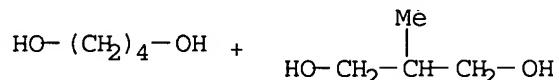
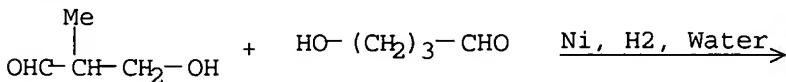
REF: Faming Zhuanli Shengqing Gongkai Shuomingshu, 1810371, 02 Aug 2006

NOTE: solid-supported catalyst, high pressure, optimization study, optimized on reaction time, catalyst, temperature, pressure, stoichiometry

CON: STAGE(1) 50 deg C, 5 MPa; 120 deg C, 5 MPa

L13 ANSWER 4 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 2



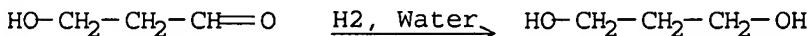
REF: U.S., 6969780, 29 Nov 2005

NOTE: Mo-promoted Ni catalyst used, fixed-bed system used, high pressure

CON: 220 days, 60 deg C -> 92 deg C, 400 - 750 psi

L13 ANSWER 5 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1

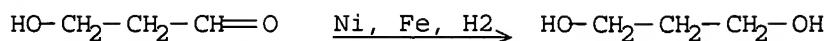


REF: Faming Zhuanli Shengqing Gongkai Shuomingshu, 1413972, 30 Apr 2003

CAS ONLINE PRINTOUT

L13 ANSWER 6 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



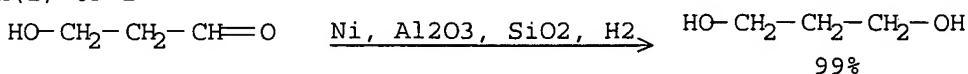
REF: Faming Zhuanli Shengqing Gongkai Shuomingshu, 1428322, 09 Jul 2003

NOTE: alternative prepn. shown

CON: STAGE(1) 50 deg C, 6 MPa; 110 deg C, 6 MPa

L13 ANSWER 7 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1

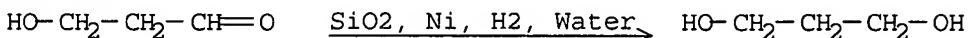


REF: Hecheng Xianwei Gongye, 26(5), 16-18, 2003

CON: STAGE(1) 55 - 60 deg C, 6 MPa; 120 deg C, 6 MPa

L13 ANSWER 8 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



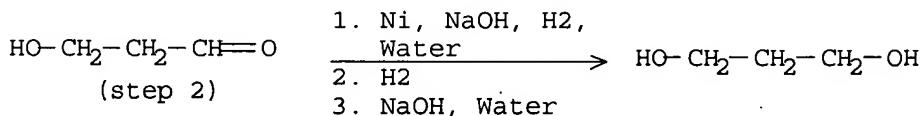
REF: U.S. Pat. Appl. Publ., 2005080300, 14 Apr 2005

NOTE: optimization study

CON: 140 deg C, 1000 psi, pH 5.5

L13 ANSWER 9 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(2) OF 3



REF: Jpn. Kokai Tokkyo Koho, 2004182622, 02 Jul 2004

NOTE: alternative prepn. shown

CON: STAGE(1) room temperature -> 60 deg C

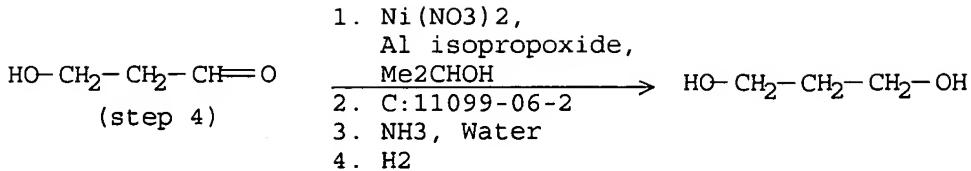
STAGE(2) 2 hours, 60 deg C, 2 MPa

STAGE(3) pH 5.5

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## CAS ONLINE PRINTOUT

RX(1) OF 1



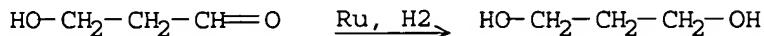
REF: Faming Zhuanli Shenqing Gongkai Shuomingshu, 1364658, 21 Aug 2002

NOTE: high pressure

CON: STAGE(1) room temperature -> 80 deg C  
 STAGE(2) 3 hours, 80 deg C  
 STAGE(3) 3 hours, 80 deg C  
 STAGE(4) 60 deg C, 5.0 MPa

L13 ANSWER 11 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



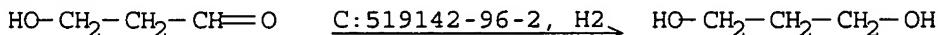
REF: Applied Catalysis, A: General, 250(1), 117-124; 2003

NOTE: optimization study

CON: 40 - 60 deg C, 40 bar

L13 ANSWER 12 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



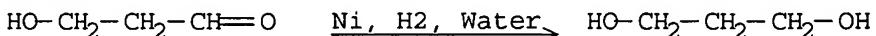
REF: Faming Zhuanli Shenqing Gongkai Shuomingshu, 1342521, 03 Apr 2002

NOTE: optimized on catalyst

CON: STAGE(1) room temperature -> 50 deg C; 60 minutes, 50 deg C;  
 50 deg C -> 130 deg C

L13 ANSWER 13 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1



REF: Faming Zhuanli Shenqing Gongkai Shuomingshu, 1342633, 03 Apr 2002

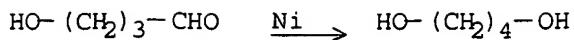
NOTE: optimization study

CON: 60 minutes, 125 - 130 deg C, 3 - 10 MPa

L13 ANSWER 14 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

CAS ONLINE PRINTOUT

RX(1) OF 2



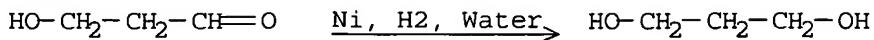
REF: Taiwan, 432037, 01 May 2001

NOTE: optimized on catalyst

CON: 10 - 200 deg C, 10 - 200 kg/cm<sup>2</sup>

L13 ANSWER 15 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

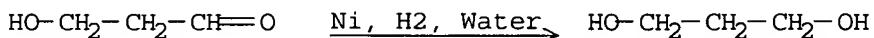
RX(2) OF 3



REF: Shiyou Lianzhi Yu Huagong, 32(12), 21-24; 2001

L13 ANSWER 16 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(2) OF 9

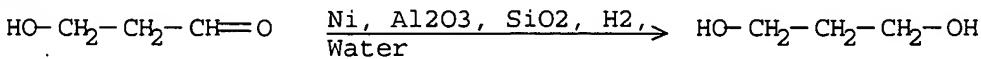


REF: PCT Int. Appl., 9418149, 18 Aug 1994

NOTE: RENEY NICKEL CATALYST, REACTANT ALSO CONTAINED ACETALDEHYDE AND SOME PROPANEDIOL

L13 ANSWER 17 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(4) OF 8

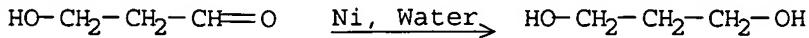


REF: Eur. Pat. Appl., 598228, 25 May 1994

NOTE: 60% overall yield

L13 ANSWER 18 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(2) OF 3

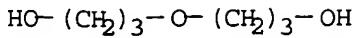


REF: U.S., 5304686, 19 Apr 1994

L13 ANSWER 19 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

CAS ONLINE PRINTOUT

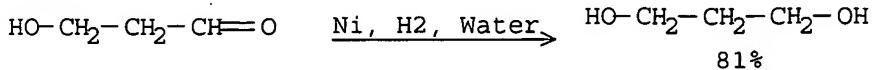
RX(1) OF 6



REF: Eur. Pat. Appl., 577972, 12 Jan 1994

L13 ANSWER 20 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 7

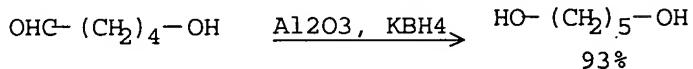


REF: Eur. Pat. Appl., 487903, 03 Jun 1992

NOTE: Raney nickel or on alumina-silica

L13 ANSWER 21 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 4



REF: Huaxue Shiji, 7(5), 286-7; 1985

L13 ANSWER 22 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

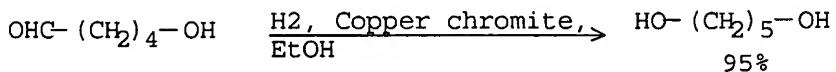
RX(1) OF 6



REF: Eur. Pat. Appl., 129802, 02 Jan 1985

L13 ANSWER 23 OF 23 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 6



REF: Journal of the American Chemical Society, 68,, 1646-8; 1946

NOTE: Classification: Reduction; Hydrogenation; # Conditions: /H<sub>2</sub>  
CuCrO EtOH; 150 deg 130kg

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Search by Spurts  
1/26/05

d it

10/676882

- L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
- IT Alkaline earth hydroxides  
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)  
(neutralization agents; reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT Distillation  
(of 1,3-propanediol)
- IT Hydrogenation  
(of 3-hydroxypropanal into 1,3-propanediol)
- IT Neutralization  
(of acidity in a reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT Alkali metal hydroxides  
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)  
(other than NaOH, neutralization agents; reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT Viscosity  
(reduction of the viscosity of reactive heavy byproducts during the production  
of 1,3-propanediol using other than sodium hydroxide)
- IT 1333-74-0, Hydrogen, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT 1305-62-0, Calcium hydroxide, reactions 1310-58-3, Potassium hydroxide, reactions 1310-65-2, Lithium hydroxide 1310-82-3, Rubidium hydroxide 1336-21-6, Ammonium hydroxide 17194-00-2, Barium hydroxide 18480-07-4, Strontium hydroxide 21351-79-1, Cesium hydroxide  
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)  
(neutralization agent; reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT 1310-73-2, Sodium hydroxide, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(neutralization agent; reduction of the viscosity of reactive heavy byproducts during the production of 1,3-propanediol using other than sodium hydroxide)
- IT 504-63-2P, 1,3-Propanediol  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); PREP (Preparation); PROC (Process)  
(reduction of the viscosity of reactive heavy byproducts during the production  
of 1,3-propanediol using other than sodium hydroxide)
- IT 7732-18-5, Water, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(reduction of the viscosity of reactive heavy byproducts during the production  
of 1,3-propanediol using other than sodium hydroxide)
- IT 2134-29-4, 3-Hydroxypropanal  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of the viscosity of reactive heavy byproducts during the production  
of 1,3-propanediol using other than sodium hydroxide)

CAS ONLINE PRINTOUT

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CAS ONLINE PRINTOUT

> d his

(FILE 'HOME' ENTERED AT 11:03:53 ON 30 JAN 2007)

FILE 'REGISTRY' ENTERED AT 11:03:58 ON 30 JAN 2007

FILE 'CAPLUS' ENTERED AT 11:04:05 ON 30 JAN 2007

E US20050043570/PN

L1 1 S E3  
L2 58690 S PROPANOL/IT  
L3 6053 S PROPANAL/IT  
L4 21448 S NEUTRALIZATION/IT  
L5 7573 S ALKALI METAL HYDROXIDES/IT  
L6 0 S L2 AND L3 AND L4 AND L5  
L7 1 S L2 AND L3 AND L5  
L8 150433 S ALCOHOLS/IT  
L9 67678 S ALDEHYDES/IT  
L10 12316 S L8 AND L9  
L11 38 S L5 AND L10  
L12 1 S L4 AND L11

=> d bib ab 1-38 111

L11 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2007:14262 CAPLUS

TI Redox reaction-based production of fuels in liquid phase in electrochemical cells and electrochemical redox reactors

IN Grimes, Patrick G.

PA USA

SO PCT Int. Appl., 71pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007002502	A2	20070104	WO 2006-US24644	20060623
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRAI US 2005-693316P P 20050623

AB Liquid-phase processes for production of fuels in an electrochem. reactor using an oxidizable reactant with liquid water in the presence of  $\geq 1$  electrolyte to form a reactive mixture, and then conducting a fuel-producing reaction in the presence of an electron transfer material that permits the movement or transport of ions and electrons. An alternative process produces fuel in an electrochem. cell, in which the reaction is characterized by an overall thermodn. energy balance according to the half-cell reactions occurring at the anode and cathodes. Energy generated and/or required by the system components is directed according to the thermodn. requirements of the half-cell reactions, thus improving fuel production efficiency.

## CAS ONLINE PRINTOUT

L11 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:11298 CAPLUS

DN 146:103903

TI Efficient production of hydrogen

IN Grimes, Patrick G.

PA USA

SO PCT Int. Appl., 64pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007002504	A1	20070104	WO 2006-US24646	20060623
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRAI US 2005-693316P P 20050623

AB This patent discloses a batch process using a mixture of water, an ionic conductive electrolyte, and an organic compound (fuel) which react in the presence of an electronic conductive catalyst, oxidizing the fuel and producing hydrogen. A liquid phase process for producing hydrogen gas in a reactor comprising the step of combining at least one oxidizable reactant with liquid water and at least one alkaline electrolyte to form a mixture having a

pH, wherein the pH of the mixture is substantially maintained at a value of about 10.5 or greater and conducting a reaction in the presence of an electron transfer material that permits the movement of electrons. An alternative method produces hydrogen gas from a reaction in an electrochem. cell, the reaction characterized by an overall thermodn. energy balance and half -cell reactions occurring at each of an anode and cathode. Energy transfers, such as thermal and elec., are analyzed and controlled in order to satisfy the thermodn. energy balance of the reaction for efficient hydrogen production

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1003014 CAPLUS

DN 145:380324

TI Alkaline colloidal fuel dispersions for fuel cells containing alkali metal oxides and inorganic hydrides

IN Sklyarsky, Leonid; Glyants, Ilya; Shirokov, Alexander; Katsman, Yuri; Kinkelaar, Mark

PA More Energy, Ltd., Israel

SO PCT Int. Appl., 29pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

## CAS ONLINE PRINTOUT

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PI	WO 2006102302	A2	20060928	WO 2006-US10180	20060321	
	WO 2006102302	A3	20061207			
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		RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	US 2006213120	A1	20060928	US 2006-384365	20060321	
PRAI	US 2005-663729P	P	20050322			
AB	A fuel concentrate, especially for fuel cells, consists of: (1) a solution of $\geq 1$ inorg. hydroxides, especially at $\geq 0.2$ M (e.g., up to 14 M), and adding $\geq 1$ inorg. hydrides in the alkaline solution, to provide a colloidal dispersion of hydride-based fuel at $\leq 70^\circ$ . The hydride fuels are capable of either undergoing an anodic oxidation in a liquid fuel cell or can decompose with generation of H <sub>2</sub> gas. Suitable hydrides include ammonium hydrides, alkali and alkaline earth metal hydrides, borohydrides, and aluminum hydrides. A water-soluble substance can be added to stabilize the colloidal dispersion, such as an alc., glycols, alkylene glycols, polyalkylene glycols, polyols, aliphatic ethers, ketones, polyhydroxy alcs., alkanolamines, etc.					
L11	ANSWER 4 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN					
AN	2006:950762 CAPLUS					
DN	145:314522					
TI	Method for preparation of N-substituted aliphatic tertiary carboxamides					
IN	Garel, Laurent					
PA	Rhodia Chimie, Fr.					
SO	Fr. Demande, 19pp.					
	CODEN: FRXXBL					
DT	Patent					
LA	French					
FAN.CNT 1 .						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
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PI	FR 2882999	A1	20060915	FR 2005-2411	20050311	
	WO 2006097594	A1	20060921	WO 2006-FR470	20060302	
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
		RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRAI	FR 2005-2411	A	20050311			
OS	CASREACT 145:314522; MARPAT 145:314522					
AB	N-substituted aliphatic tertiary amides R <sub>1</sub> (R <sub>2</sub> )R <sub>3</sub> CONHR <sub>4</sub> (R <sub>1</sub> -R <sub>4</sub> = C <sub>1-4</sub> alkyl; where the sum of the carbon atoms of R <sub>1</sub> -R <sub>3</sub> is $\geq 4$ ; e.g.,					

## CAS ONLINE PRINTOUT

2-isopropyl-N-2,3-trimethylbutanamide) are prepared by the reaction of a the corresponding primary amide R1(R2)R<sub>3</sub>CCONH<sub>2</sub> with an aldehyde R<sub>5</sub>CHO (R<sub>5</sub> = H, C<sub>1</sub>-3 alkyl) followed by the reduction of the compound obtained through preferably a catalytic hydrogenolysis thus leading to obtaining an aliphatic tertiary amide N-substituted.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1166622 CAPLUS

DN 143:427381

TI Composition comprising a biocide encapsulated within a fungal cell

IN Nelson, Gordon; Buck, Rachael; Crothers, Michael Edward Donald

PA Micap PLC, UK

SO Brit. UK Pat. Appl., 80 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2413563	A	20051102	GB 2004-9373	20040427
	AU 2005237282	A1	20051110	AU 2005-237282	20050118
	WO 2005104842	A1	20051110	WO 2005-GB128	20050118
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	GB 2004-9373	A	20040427		
	WO 2005-GB128	W	20050118		

AB A composition comprising at least one biocidally active compound encapsulated within an adjuvant, where the adjuvant comprises a fungal cell or fragment thereof. Preferably, the biocide is lipophilic and may be an essential oil, antibiotic, fungicide, bacteriocide, antifungal, antimicrobial or antibacterial, agent, eg mupirocin, gentamicin, fucidin, triclosan, quaternary ammonium compound etc. Preferably the fungal cell is yeast, (*Saccharomyces cerevisiae*) but can be *Candida albicans*, *Blastomyces dermatitidis*, *Coccidioides immitis*, *Penicillium marneffei* or fungi of the genus *Ascomycotina*. The fungal cell may be alive, or dead (a ghost cell) and the composition may be a pharmaceutical composition used as a medicament in therapeutic methods to treat microbial infections. Examples relate to the antifungal activity of econazole encapsulated within yeast against *C. albicans*.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1027526 CAPLUS

DN 144:248551

TI The in vitro acute skin irritation of chemicals: Optimisation of the EPISKIN prediction model within the framework of the ECVAM validation process

AU Cotovio, Jose; Grandidier, Marie-Helene; Portes, Pascal; Roguet, Roland; Rubinstenn, Gilles

## CAS ONLINE PRINTOUT

CS L'OREAL Recherche, Aulnay Sous Bois, Fr.  
SO ATLA, Alternatives to Laboratory Animals (2005), 33(4), 329-349  
CODEN: AALADQ; ISSN: 0261-1929  
PB FRAME  
DT Journal  
LA English  
AB In view of the increasing need to identify non-animal tests able to predict acute skin irritation of chems., the European center for the Validation of Alternative Methods (ECVAM) focused on the evaluation of appropriate in vitro models. In vitro tests should be capable of discriminating between irritant (I) chems. (EU risk: R38) and non-irritant (NI) chems. (EU risk: "no classification"). Since major in vivo skin irritation assays rely on visual scoring, it is still a challenge to correlate in vivo clin. signs with in vitro biochem. measurements. Being particularly suited to test raw materials or chems. with a wide variety of phys. properties, in vitro skin models resembling in vivo human skin were involved in prevalidation processes. Among many other factors, cytotoxicity is known to trigger irritation processes, and can therefore be a first common event for irritants. A refined protocol (protocol15min-18hours) for the EPISKIN model had been proposed for inclusion in the ECVAM formal validation study. A further improvement on this protocol, mainly based on a post-treatment incubation period of 42 h (protocol15min-42hours), the optimized protocol, was applied to a set of 48 chems. The sensitivity, specificity and accuracy with the MTT assay-based prediction model (PM) were 85%, 78.6% and 81.3% resp., with a low rate of false negatives (12%). The improved performance of this optimized protocol was confirmed by a higher robustness (homogeneity of individual responses) and a better discrimination between the I and NI classes. To improve the MTT viability-based PM, the release of a membrane damage marker, adenylate kinase (AK), and of cytokines IL-1 $\alpha$  and IL-8 were also investigated. Combining these endpoints, a simple 2-tiered strategy (TTS) was developed, with the MTT assay as the first, sort-out, stage. This resulted in a clear increase in sensitivity to 95%, and a fall in the false-pos. rate (to 4.3%), thus demonstrating its usefulness as a "decision-making" tool. The optimized protocol proved, both by its higher performances and by its robustness, to be a good candidate for the validation process, as well as a potential alternative method for assessing acute skin irritation.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2005:982304 CAPLUS  
DN 143:266589  
TI Procedure for the production of propargyl alcohols and the corresponding allyl alcohols by partial catalytic hydrogenation  
IN Klass, Katrin; Hahn, Thilo; Henkelmann, Jochem  
PA BASF A.-G., Germany  
SO Ger. Offen., 9 pp.  
CODEN: GWXXBX

DT Patent  
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 102004009311	A1	20050908	DE 2004-102004009311	20040226
	WO 2005082822	A1	20050909	WO 2005-EP1755	20050219
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,			

## CAS ONLINE PRINTOUT

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,  
 SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRAI DE 2004-102004009311 A 20040226

OS CASREACT 143:266589; MARPAT 143:266589

AB Propargyl alcs. R1CH(OH)C.tplbond.CH (I; R1 = C1-30 alkyl, C3-8 cycloalkyl, C2-20 alkoxyalkyl, C6-14 aryl, C7-20 alkoxyaryl, C7-20 aralkyl, C7-20 alkylaryl, H; e.g., ethyloctynol) are prepared by the condensation of acetylene with an aldehyde R1CHO (e.g., 2-ethylhexanal) in the presence of ammonia and a catalytic quantity of an alkali, a Group IIA hydroxide, or an Group IA metal alcoholate (e.g., KOMe), and the corresponding allyl alcs. R1CH:CHCH2OH (e.g., 4-ethyl-1-octen-3-ol) are prepared by the partial catalytic hydrogenation of I with H<sub>2</sub> in the presence of CO.

L11 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:2242 CAPLUS

DN 142:94280

TI Process for operating a quench device in an oxygenate-to-olefin production unit

IN Ding, Zhong Yi; Lattner, James Richardson; Lumgair, David Ritchie; Kabin, Jeffrey Alan; Van Egmond, Cor F.

PA Exxonmobil Chemical Patens Inc., USA

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004267068	A1	20041230	US 2003-603552	20030625
	US 7102049	B2	20060905		
	WO 2005005577	A1	20050120	WO 2004-US18141	20040604
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI US 2003-603552 A 20030625

AB The present invention is a process for producing olefin(s) (e.g., ethylene) from oxygenates (e.g., methanol) that is more effective than previously known processes at removing carbon dioxide from the effluent stream by operating a quench tower at a pH greater than 7.0. Process flow diagrams are presented.

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:569898 CAPLUS

DN 141:107950

TI Crossed-alcohol condensation and hydrogenation process for the co-production

## CAS ONLINE PRINTOUT

of primary alcohols using a water-soluble phase-transfer catalyst  
 IN Kramarz, Kurt W.; Ingram, Richard J.; Aiken, John E.; Gallaher, George R.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 14 pp.  
 CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004138510	A1	20040715	US 2003-716920	20031119
	WO 2004065342	A1	20040805	WO 2003-US39018	20031209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003297748	A1	20040813	AU 2003-297748	20031209
PRAI	US 2003-439730P	P	20030113		
	US 2003-716920	A	20031119		
	WO 2003-US39018	W	20031209		

OS CASREACT 141:107950

AB A process is described for the preparation of at least one primary alc. by the hydrogenation of an unsatd. aldehyde reaction product produced by an aqueous base-catalyzed crossed-alcohol reaction between a first aldehyde containing 3-5 carbons and a second aldehyde containing 6-11 carbons, the selectivity of the crossed-alcohol condensation reaction is improved through the use of a water-soluble phase-transfer catalyst. Methods in which 2,4-diethyloctanol is co-produced with 2-ethylhexanol in batch and continuous processes are described by the via the hydrogenation of 2-ethyl-2-hexenal and 2,4-diethyl-2-octenal produced from an aldol condensation reaction which makes use of n-butyraldehyde and 2-ethylhexanal as the reactant aldehydes in the presence of an alkali (e.g., sodium hydroxide) using a water-soluble phase-transfer catalyst (e.g., tributylmethylammonium chloride). Recovery of the phase-transfer catalyst through water washing followed by salting out from the washings is also demonstrated and process flow diagrams are presented.

L11 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:290399 CAPLUS

DN 140:298882

TI Decontaminating systems containing reactive nanoparticles and biocides  
 IN Carnes, Corrie L.; Klabunde, Kenneth J.; Koper, Olga; Martin, Lisa S.;  
 Knappenberger, Kyle; Malchesky, Paul S.; Sanford, Bill R.

PA United States Air Force, USA

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004067159	A1	20040408	US 2002-267986	20021008
	US 6827766	B2	20041207		
	CA 2501804	A1	20040422	CA 2003-2501804	20031002
	WO 2004032624	A2	20040422	WO 2003-US31911	20031002

## CAS ONLINE PRINTOUT

WO 2004032624 A3 20040701  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,  
 GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,  
 OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003291633 A1 20040504 AU 2003-291633 20031002

EP 1560486 A2 20050810 EP 2003-768520 20031002

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2006501962 T 20060119 JP 2004-543543 20031002

PRAI US 2002-267986 A 20021008  
 WO 2003-US31911 W 20031002

AB Area decontamination products are provided which include reactive nanoparticles (e.g., metal oxides, hydroxides and mixts. thereof) used with one or more biocides and a liquid carrier. The products may be formulated for area decontamination as sprays, fogs, aerosols, pastes, gels, wipes or foams, and the presence of reactive nanoparticles enhances the neutralization of undesirable chemical or biol. compds. or agents. The nanoparticles may be from the group consisting of the alkali metal, alkaline earth metal, transition metal, actinide and lanthanide oxides and hydroxides and mixts. thereof. In preferred forms, nanocryst. oxides and hydroxides of Al, Ca, Ce, Mg, Sr, Sn, Ti and Zn are employed having single crystallite sizes of up to about 20 nm and surface areas of at least about 15 m<sup>2</sup>/g.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2004:182820 CAPLUS  
 DN 140:235422  
 TI Catalytic ethynylation process for the production of propargylic alcohols  
 IN Bonrath, Werner; Scheer, Peter L.; Tschumi, Johannes; Zenhaeusern, Reto  
 PA DSM IP Assets B.V., Neth.  
 SO PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004018400	A1	20040304	WO 2003-EP8867	20030809
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003255407	A1	20040311	AU 2003-255407	20030809
	EP 1532092	A1	20050525	EP 2003-792289	20030809
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

## CAS ONLINE PRINTOUT

CN 1675152	A	20050928	CN 2003-818988	20030809
JP 2005538142	T	20051215	JP 2004-530118	20030809
US 2005240066	A1	20051027	US 2005-524762	20050215
PRAI EP 2002-18458	A	20020816		
WO 2003-EP8867	W	20030809		
OS CASREACT 140:235422; MARPAT 140:235422				
AB A process for the manufacture of an acetylenically unsatd. alcs. (e.g., 2-ethyl-3-butyn-2-ol) comprises reacting formaldehyde, an aldehyde or a ketone (a carbonyl compound; e.g., 2-butanone) with acetylene in the presence of ammonia and an alkali metal hydroxide (e.g., potassium hydroxide), the molar ratio of the alkali metal hydroxide to the carbonyl compound being <1:200.				

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:872312 CAPLUS  
 DN 139:350540  
 TI Procedure for the production of p-hydroxybenzaldehydes  
 IN Wolf, Aurel; Krueger, Christa; Langer, Reinhard; Klausener, Alexander  
 PA Bayer AG, Germany  
 SO Ger. Offen., 8 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10219030	A1	20031106	DE 2002-10219030	20020429
PRAI DE 2002-10219030		20020429		
OS CASREACT 139:350540; MARPAT 139:350540				
AB 4-Hydroxybenzaldehydes I [R1-R4 = H, halogen, alkyl, alkoxy, cycloalkyl, aralkyl, aryl] were prepared by transition metal-catalyzed oxidation of p-cresols in presence of the corresponding p-methoxymethylphenols and a base in an organic solvent. Thus, the oxidation of p-cresol in presence of CoCl <sub>2</sub> and NaOH in MeOH gave 76.5% 4-HOC <sub>6</sub> H <sub>4</sub> CHO and 23.4% 4-HOC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> OMe at 100% conversion. A similar oxidation in the presence of 4-HOC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> OMe gave 96% 4-HOC <sub>6</sub> H <sub>4</sub> CHO and 4.3% 4-HOC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> OMe.				

L11 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:836650 CAPLUS  
 DN 139:323336  
 TI Process for preparing 2,5-dimethoxybenzaldehyde  
 IN Shanks, Thomas Elbert; Maleski, Robert Joseph  
 PA Eastman Chemical Co., USA  
 SO U.S. Pat. Appl. Publ., 7 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003199714	A1	20031023	US 2002-124856	20020418
US 6670510	B2	20031230		
PRAI US 2002-124856		20020418		
OS CASREACT 139:323336				
AB 2,5-Dimethoxybenzaldehyde is prepared by reacting 2-hydroxy-5-methoxybenzaldehyde with a metal hydroxide (e.g., potassium hydroxide) in the presence of a suitable solvent (e.g., acetonitrile) to make a metal salt of 2-hydroxy-5-methoxybenzaldehyde (e.g., 2-hydroxy-5-methoxybenzaldehyde potassium salt) which is then etherified with di-Me				

## CAS ONLINE PRINTOUT

sulfate in the presence of a suitable solvent (e.g., heptane and DMF).

L11 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:463423 CAPLUS  
 DN 140:145802  
 TI Process for preparation of alcohols by electrocatalytic hydrogenation of ketones and aldehydes in presence of nickel catalyst  
 IN Shchelkunov, A. V.; Bekenova, U. B.; Do, S. V.; Shchelkunov, S. A.  
 PA Russia  
 SO Russ., No pp. given  
 CODEN: RUXXE7  
 DT Patent  
 LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	RU 2198158	C2	20030210	RU 2001-104908	20010222
PRAI	RU 2001-104908			20010222	

OS CASREACT 140:145802

AB Alcs., useful in perfumery, in production of polymers, dyes, and other organic products (no data) are prepared by electrocatalytic hydrogenation of corresponding ketones and aldehydes in two-cell electrolyzer with ion-exchange diaphragm, cathode, activated skeletal Ni catalyst and Pt or magnetite anode, such that the catholyte is an aqueous solution of unoxidizable salt or mixture thereof with alkali metal hydroxide. Preferably, the concentration

of unoxidizable salt is 1-15% and that of alkali metal hydroxide ≤5%. In an example, hydrogenation of 2-hydroxybenzaldehyde by the above method using a Pt anode and a mixture of Na<sub>2</sub>SO<sub>4</sub> and NaOH as catholyte afforded 93% 2-hydroxybenzyl alc.; this reaction was repeated 18 times with no loss of catalyst activity.

L11 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:282508 CAPLUS  
 DN 138:303929  
 TI Ethynylation process and catalyst for the manufacture of acetylenically unsaturated alcohols from the reaction of acetylene with a ketone and formaldehyde

IN Bonrath, Werner; Englert, Bernd; Karge, Reinhard; Schneider, Michael  
 PA Roche Vitamins Ag, Switz.  
 SO PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003029175	A1	20030410	WO 2002-EP10508	20020919
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP	1432667	A1	20040630	EP 2002-800097	20020919
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

## CAS ONLINE PRINTOUT

CN 1558888	A	20041229	CN 2002-818739	20020919
JP 2005504116	T	20050210	JP 2003-532430	20020919
US 2005059844	A1	20050317	US 2004-489523	20041015
US 6949685	B2	20050927		
PRAI EP 2001-123492	A	20010928		
WO 2002-EP10508	W	20020919		
OS CASREACT 138:303929; MARPAT 138:303929				
AB A process for the manufacture of an acetylenically unsatd. alc. (e.g., dehydrolinalool) comprising reacting formaldehyde, an aldehyde or a ketone (e.g., 6-methyl-5-hepten-2-one) with acetylene in the presence of ammonia and a strongly basic macroporous anion exchange resin (e.g., Ambersep 900 OH). A process flow diagram is presented.				
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L11 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2002:946225 CAPLUS  
 DN 138:28864  
 TI Treatment of liquids  
 IN Zadiraka, Yuri Vladimirovich; Barkhudarov, Eduard Mikhailovich; Kossyi, Igor Antonovich; Taktakishvili, Merab Ivanovich  
 PA Splits Technologies Limited, UK  
 SO PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002098799	A1	20021212	WO 2002-GB2787	20020607
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI GB 2001-13910 A 20010607  
 AB The present invention provides an apparatus suitable for use in the treatment of liqs. such as water, wastewater and waste transformer oil. The apparatus comprises a high voltage elec. discharge device with a first electrode and a second electrode spaced apart from the first electrode and an elec. power supply control for applying a series of high voltage pulses across said first and second electrodes so as to produce an extended area elec. discharge in an elec. discharge zone extending between the first and second electrodes. The apparatus includes a gas delivery means for feeding a series of bubbles of gas into the liquid in said elec. discharge zone. The first and second electrodes and any secondary electrodes therebetween, have opposed portions only said opposed portions of the electrodes and any secondary electrodes present therebetween, being covered in solid dielec. insulator material. Other applications of the present invention include activation of oils and generation of ultrasound for medical purposes.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2002:865543 CAPLUS  
 DN 137:352693

## CAS ONLINE PRINTOUT

TI Procedure for the production of 3-alkoxy-1-propanals and 3-alkoxy-1-propanols by the base-catalyzed addition reaction of saturated alkanols with acrolein followed by hydrogenation

IN Hahm, Thorsten; Hoepp, Mathias; Ronge, Christian; Koehler, Klaus

PA Degussa AG, Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10122268	A1	20021114	DE 2001-10122268	20010508

PRAI DE 2001-10122268 20010508

OS CASREACT 137:352693

AB 3-Alkoxy-1-propanals are prepared by the addition reaction of saturated alkanols

(e.g., methanol) in presence of base (e.g., alkalis, alkaline-earth hydroxides, and amines; e.g., sodium hydroxide) catalysts at 0-45°. 3-Alkoxy-1-propanols (e.g., 3-methoxy-1-propanol) may be prepared by the in-situ hydrogenation (i.e., using Raney nickel) of the 3-alkoxy-1-propanals (e.g., 3-methoxy-1-propanal).

L11 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:738336 CAPLUS

DN 138:216639

TI Extent of Initial Corneal Injury as the Mechanistic Basis for Ocular Irritation: Key Findings and Recommendations for the Development of Alternative Assays

AU Maurer, James K.; Parker, Ron D.; Jester, James V.

CS The Procter & Gamble Company, Cincinnati, OH, USA

SO Regulatory Toxicology and Pharmacology (2002), 36(1), 106-117

CODEN: RTOPDW; ISSN: 0273-2300

PB Elsevier Science

DT Journal

LA English

AB Currently, there are no recognized alternative tests to eliminate the use of animals in ocular irritation testing. A major reason no replacement alternatives have been developed is that the current in vivo data set provides no perspective regarding the critical cellular and mol. changes involved in initial ocular injury, subsequent responses, and repair processes in standard in vivo tests. Without this perspective, mechanistically based replacement tests cannot be developed and validated. The authors have proposed that the level of ocular irritation is related to the extent of initial injury, and that regardless of the processes leading to tissue damage, the extent of initial injury is the principal factor determining the outcome of ocular irritation. This article summarizes the results from the authors' studies of various surfactants and nonsurfactants of differing irritancy that support our hypothesis. These findings indicate that a mechanistically based alternative to in vivo ocular irritation tests would be the microscopic or biochem. measurement of initial injury using either ex vivo or in vitro corneal equivalent systems composed of corneal epithelial, stromal keratocyte, and corneal endothelial cell layers. This work also provides a well-characterized panel of materials of varying types and irritation for use in developing and validating alternative tests.

RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:716226 CAPLUS

## CAS ONLINE PRINTOUT

DN 137:234385

TI Improved process for the production of 6-methylheptan-2-one

IN Krill, Steffen; Kretz, Stephan; Schneider, Achim

PA Degussa AG, Germany

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072522	A1	20020919	WO 2002-EP928	20020130
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10112099	A1	20020919	DE 2001-10112099	20010314
	EP 1368293	A1	20031210	EP 2002-716698	20020130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2003040645	A1	20030227	US 2002-96959	20020314
	US 6605746	B2	20030812		
PRAI	DE 2001-10112099	A	20010314		
	WO 2002-EP928	W	20020130		

OS MARPAT 137:234385

AB Title compds. I [ $x = 1-3$ ] were prepared by reaction of H<sub>2</sub>, acetone and aldehydes II [ $x = 0-2$ ; dotted lines = optional double bonds] in a 2-phase reaction mixture and in the presence of a catalyst suspension which contains a suspended heterogeneous hydrogenating catalyst, an alkali- or alkaline earth metal-containing aldol catalyst and an auxiliary solvent. Water (350 g) is charged to an autoclave followed by 5 wt% Pd/C (6.5 g) and NaOH (5 g) followed by acetone (7.5 mol), hydrogen (15 bar) and the contents adjusted with agitation to 105°. Isovaleraldehyde (4.96 mol) is delivered by pump over 3 h maintaining 105° - 110°. When a total of 115 L H<sub>2</sub> is taken up by the batch, it is cooled to room temperature and the catalyst system removed by filtration. 6-Methylheptan-2-one (4.65 mol) is obtained organic phase (GC) in 93.75%. Modification of the process by the addition of water-immiscible auxiliary solvents, e.g., Me iso-Bu ketone (the acetone dimerization byproduct), results in a yield increase to 95.4%. Similar results are obtained by the addition of other auxiliary solvents (5 examples). Addnl., examples are provided demonstrating the efficacy of catalyst recycling in the process. The current process produces 2-methylheptanone with higher yields than prior art.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:387627 CAPLUS

DN 136:386561

TI Oxidative cleavage method for preparing sebacic acid and 2-octanol from castor oil or its derivatives in the presence of alkali and a thinning agent

IN Logan, Roger L.; Udeshi, Subhash V.

PA USA

SO U.S., 6 pp.

CODEN: USXXAM

## CAS ONLINE PRINTOUT

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6392074	B1	20020521	US 2000-570794	20000512
PRAI US 2000-570794		20000512		

AB Sebacic acid and 2-octanol are prepared from ricinic compds. by a high-temperature

reaction achieved by combining an alkali in aqueous solution, a thinning agent, and a ricinic compound at a first temperature sufficient to distill off volatiles

in the reaction mixture and then raising the temperature to a temperature sufficient to

initiate a pyrolysis reaction and form a cleaved product from the ricinic compound, and where the amount of thinning agent is in at a level sufficient to reduce the solidification of the mass during the reaction, reduce foaming, and increase the yield and purity of the products. The thinning agent is an isocarboxylic acid (e.g., 2-ethylhexanoic acid), an isoaldehyde, or an isoalc. containing from 5 to 13 carbon atoms. The thinning agent is relatively inexpensive, nonvolatile and resistant to decomposition under the reaction conditions, easy to recover, and a nonfoaming agent. The ricinic compound is castor oil, a ricinoleate, a ricinic acid ester, a ricinoleic acid, a ricinoleic acid amide, a ricinoleic acid ester, a sulfonated ricinoleate, a ricinic ester, a ricinic alc., ricinoleyl acid, a ricinoleyl acid amide, ricinoleyl alc., ricinoleyl alc. ester (e.g., Me ricinoleate), an alkali ricinoleate or a mixture thereof and the reaction mixture is acidified at the end of the reaction to allow for effective recovery of the thinning agent and the products.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:240698 CAPLUS

DN 136:264843

TI Manufacture of Guerbet alcohols by use of alkali metal hydroxides as condensation catalysts

IN Both, Sabine; Fieg, Georg; Reuter, Erich; Bartschick, Frank; Gutsche, Bernhard

PA Cognis Deutschland G.m.b.H., Germany

SO PCT Int. Appl., 11 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002024616	A1	20020328	WO 2001-EP10477	20010911
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10046433	A1	20020404	DE 2000-10046433	20000920
EP 1318970	A1	20030618	EP 2001-972045	20010911
EP 1318970	B1	20061129		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004509156	T	20040325	JP 2002-528632	20010911
US 2003181770	A1	20030925	US 2003-380978	20030320
US 6911567	B2	20050628		
PRAI DE 2000-10046433	A	20000920		
WO 2001-EP10477	W	20010911		

## CAS ONLINE PRINTOUT

OS MARPAT 136:264843  
 AB Guerbet alcs.  $\text{CH}_3(\text{CH}_2)_n\text{CHR}_1\text{CH}_2\text{OH}$  ( $\text{R}_1 = \text{C}_n\text{-1 alkyl}$ ;  $n = 3\text{-}9$ ) were manufactured by condensation of fatty alcs.  $\text{R}_2\text{OH}$  ( $\text{R}_2 = \text{C}_{6\text{-}12}$  alkyl) with carbonyl compds., especially fatty aldehydes  $\text{R}_3\text{CHO}$  ( $\text{R}_3 = \text{C}_{6\text{-}12}$  alkyl), in the presence of alkali hydroxides instead of heavy metal-containing catalysts. For example, heating a mixture of decanol 1000, KOH (45% aqueous solution) 22.5 and decanal 29.6 g at  $240^\circ$  with continuous removal of  $\text{H}_2\text{O}$  and recycling the organic phase to the reaction mixture gave a product containing 43% 2-octyldodecanol (not isolated), 2% trimers, 53% unconverted decanol and 2% C18- and C22-Guerbet alcs.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:185047 CAPLUS

DN 136:233895

TI Process for production of 6-methylheptanone

IN Krill, Steffen; Huthmacher, Klaus

PA Degussa A.-G., Germany

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002020449	A1	20020314	WO 2001-EP8990	20010803
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	DE 10044390	A1	20020321	DE 2000-10044390	20000908
	AU 2001078521	A5	20020322	AU 2001-78521	20010803
	US 2002058846	A1	20020516	US 2001-948650	20010910
	US 6417406	B2	20020709		
PRAI	DE 2000-10044390	A	20000908		
	WO 2001-EP8990	W	20010803		

OS MARPAT 136:233895

AB An improved process for production of Me heptanone and corresponding homologous Me ketones, in particular phytone and tetrahydrogeranyl acetone, comprises aldolization of isovaleraldehyde or prenal or of the corresponding aldehydes with acetone in the presence of a polyhydric alc. containing the aldolization catalyst and the heterogeneous hydrogenation catalyst. The working-up of the two-phase reaction mixture is carried out by simple separation of the supernatant produce phase from the catalyst suspension containing the active hydrogenation catalyst, optionally with distillative removal of the water of reaction that is formed, and recycling of the active catalyst phase.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:2788 CAPLUS

DN 136:37325

TI Process for preparing aldehyde and ketone by dehydrogenating alcohol

IN Ma, Youshan; Su, Jie; Wang, Chunmei; Shang, Zhen

PA China Petrochemical Group Corp., Peop. Rep. China

## CAS ONLINE PRINTOUT

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.  
 CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1289752	A	20010404	CN 1999-113277	19990929
	CN 1123555	B	20031008		

PRAI CN 1999-113277

19990929

OS CASREACT 136:37325

AB Aldehyde and ketone are synthesized by dehydrogenation of C1-18 alc. in the presence of solid catalyst at 180-450° and 0.01-1.0 MPa under adding 10 µg/g-2% organic amine or acetonitrile. The organic amine is C1-12 primary or multibasic amine such as methylamine, ethylamine, dimethylamine, diethylamine, ethylenediamine, propylamine, butylamine, aniline, piperazine, and/or morpholine. The alc. is primary alc., secondary alc., or cyclic alc. The solid catalyst is ZnO-type catalyst, reduced Cu catalyst, or precious metal catalyst. The reduced Cu catalyst is composed of reduced Cu, catalyst adjuvant, and/or carrier.

L11 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:393237 CAPLUS

DN 135:5378

TI Catalytic aldol condensation of C1-15 aldehydes by multiphase reaction

IN Wiese, Klaus-Diether; Protzmann, Guido; Koch, Juergen; Bueschken, Wilfried

PA Oxeno Olefinchemie G.m.b.H., Germany

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19957522	A1	20010531	DE 1999-19957522	19991130
	EP 1106596	A2	20010613	EP 2000-122424	20001013
	EP 1106596	A3	20020417		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6340778	B1	20020122	US 2000-694350	20001024
	SG 86452	A1	20020219	SG 2000-6842	20001116
	JP 2001163823	A	20010619	JP 2000-359863	20001127
	CA 2327047	A1	20010530	CA 2000-2327047	20001128
	CN 1297877	A	20010606	CN 2000-134293	20001129
	ZA 2000007013	A	20010607	ZA 2000-7013	20001129
	TW 548264	B	20030821	TW 2000-89125323	20001129
	BR 2000005672	A	20011127	BR 2000-5672	20001130

PRAI DE 1999-19957522 A 19991130

OS CASREACT 135:5378

AB Catalytic aldol condensation of C1-15 aldehydes is carried out by multiphase reaction in a tube reactor whereby: (1) the catalyst (H<sub>2</sub>O-soluble base) is present in the continuous phase at 0.1-15 weight%, (2) the disperse phase contains ≥1 aldehyde, and (3) the load factor of the reactor is ≥0.8. The continuous phase consists of H<sub>2</sub>O and a H<sub>2</sub>O-soluble organic solvent, and the mass ratio of the continuous phase to the disperse phase is >2. Thus, aldol condensation of n-pentanal at 110° using cat. NaOH in diethylene glycol (DEG) at a flow of 400 kg/h gives 95.4 weight% 2-propylheptenal. α,β-Unsatd. aldehydes prepared by described aldol condensation are especially useful after hydrogenation for preparation of alc.

for manufacture of softeners, detergents, or solvents; or after hydrogenation

## CAS ONLINE PRINTOUT

and oxidation for preparation of carboxylic acids. Compared to conventional methods, the present process gives high yields at low temperature and reduces byproduct formation and catalyst deactivation.

L11 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:839081 CAPLUS  
 DN 134:17164  
 TI Process and catalyst for the preparation of hydroxyalkynes from the addition reaction of terminal alkynes with aldehydes or ketones  
 IN Koradin, Christopher; Aisca, Bayeto Juan Jose; Henkelmann, Jochem; Preiss, Thomas; Knochel, Paul; Tzelis, Dimitrios  
 PA Basf Aktiengesellschaft, Germany  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1055656	A2	20001129	EP 2000-110973	20000526
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19924049	A1	20001130	DE 1999-19924049	19990526
	JP 2001002606	A	20010109	JP 2000-151403	20000523
PRAI	DE 1999-19924049	A	19990526		
OS	CASREACT 134:17164; MARPAT 134:17164				
AB	Hydroxyalkynes R1(R2)C(OH)C.tplbond.CR3 [R1-R3 = H, C1-20 (un)substituted (un)saturated hydrocarbyl] (e.g., 4-ethyl-1-phenyl-1-hexyn-3-ol) are prepared in				
	high yield and selectivity by the addition reaction of an aldehyde (e.g., 2-ethylbutyraldehyde) or ketone R1COR2 with an $\alpha$ -alkyne HC.tplbond.CR3 (e.g., phenylacetylene) in the presence of a cesium hydroxide monohydrate catalyst in NMP.				

L11 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:761963 CAPLUS  
 DN 133:321803

TI Method for preparation of dihydropyran derivative  
 IN Umada, Akira; Tanaka, Shigeyoshi; Koshino, Junji  
 PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000302776	A	20001031	JP 1999-110761	19990419
PRAI	JP 1999-110761		19990419		
OS	CASREACT 133:321803; MARPAT 133:321803				
AB	Dihydropyran derivs. (I; R1 = C1-12 alkyl, C3-12 cycloalkyl optionally substituted with alkenyl or alkyl, C6-12 aryl optionally substituted with alkyl or alkoxy; R2, R3 = H, C1-6 alkyl or alkenyl) are prepared by cycloaddn. reaction of aldehydes represented by formula R1-CHO (R1 = same as above) with butadienes represented by formula CH <sub>2</sub> :CR <sub>2</sub> CH:CHR <sub>3</sub> (R2, R3 = same as above) in the presence of halide Lewis acid catalyst and heating the reaction products in the presence of alkali and optional alc., followed by distillation This process decreases the formation of organic halogen compds. (byproducts) and gives dihydropyran derivs. of high quality which are useful as perfumes or intermediates for perfumes. Thus, 150 mL				

## CAS ONLINE PRINTOUT

toluene and 4.3 g anisole were added to 5.3 g AlCl<sub>3</sub> and cooled at 0°, followed by adding dropwise a mixture of 42.5 g benzaldehyde and 62.7 g isoprene at 0-5° over a period of 2 h and then adding 12.5 g H<sub>2</sub>O at ≤30°, and the resulting mixture was stirred for 1 h. To the upper layer containing 0.72% Cl (235.5 g) obtained was added 10.0 g 48% aqueous H<sub>2</sub>O and the resulting mixture was distilled using a 15-stage distillation column. When the inner temperature reached at 180°, the resulting mixture was stirred for 3 h and the distillation was continued to give 84% 6-phenyl-4-methyl-5,6-dihydro-2H-pyran containing 10 ppm Cl.

L11 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1999:90416 CAPLUS  
DN 130:111846  
TI A method and phase-transfer catalysts for the removal of N-nitroso and N-nitro impurities dinitroanilines  
IN Bernardi, Gianluca  
PA Finchimica S.p.A., Italy  
SO Eur. Pat. Appl., 4 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 893431	A2	19990127	EP 1998-112815	19980710
	EP 893431	A3	19990324		
	EP 893431	B1	20020918		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 5959149	A	19990928	US 1998-113998	19980710
	AT 224356	T	20021015	AT 1998-112815	19980710
	PT 893431	T	20021129	PT 1998-112815	19980710
	ES 2180099	T3	20030201	ES 1998-112815	19980710

PRAI IT 1997-TO636 A 19970714  
AB Removal of N-nitroso and N-nitro compound impurities from dinitroanilines having herbicidal activity (e.g., Pendimethalin) is achieved by: effecting a denitrosation reaction on the dinitration mixture containing the dinitroaniline and the corresponding unwanted N-nitroso- and N-dinitroaniline impurities in the absence of solvent; and the denitration reaction is next conducted in the same reactor with the addition to the denitrosation product of an aqueous base, and a phase-transfer catalyst. Thus, a dinitration product containing 81% pendimethalin, 13% N-nitrosopendimethalin, and 700 ppm N-nitropendimethalin was mixed with aqueous HCl and 3-pentanone, heated to 85° with agitation for 4.5 h, aqueous NaOH and benzylidimethylammonium chloride added, the mixture agitated for 2 h, and the organic layer washed twice with 75° water, producing an organic phase containing 93.3% pendimethalin, 37 ppm N-nitrosopendimethalin, and 9 ppm N-nitropendimethalin.

L11 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1999:77528 CAPLUS  
DN 130:111841  
TI Preparation of cis-4-tertiary-butylcyclohexyl acetate by the stereoselective hydrogenation of 4-tertiary-butylphenol and acetylation esterification of the alcohol and perfume compositions containing it  
IN Sekiguchi, Masahito; Tanaka, Shin; Tsukasa, Hidetaka  
PA Sumitomo Chemical Company, Limited, Japan; Toyotama International Co., Ltd.

## CAS ONLINE PRINTOUT

SO PCT Int. Appl., 29 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9903815	A1	19990128	WO 1998-JP3219	19980717
	W: BR, CN, IL, KR, MX, RU, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 11080079	A	19990323	JP 1998-201750	19980716
	JP 11100591	A	19990413	JP 1998-201749	19980716
	EP 998444	A1	20000510	EP 1998-932567	19980717
	EP 998444	B1	20030305		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	ES 2193543	T3	20031101	ES 1998-932567	19980717
	IL 133991	A	20051218	IL 1998-133991	19980717
PRAI	JP 1997-192663	A	19970717		
	JP 1997-199940	A	19970725		
	WO 1998-JP3219	W	19980717		
AB	Cis-4-tert-butyldicyclohexyl acetate (I; having a cis-4-tert-butyldicyclohexyl acetate content of ≥90%, containing ≤50 ppm of acetic acid, and having a f.p. ≥-35°), useful as a woody-and-fruity fragrance component for perfumes, etc., is prepared in high yield and selectivity by the stereoselective hydrogenation of 4-tert-butylphenol in the presence of a Rh catalyst and ≥1 of HCl, anhydrous H <sub>2</sub> SO <sub>4</sub> , HClO <sub>4</sub> , HBr, and Br <sub>2</sub> , producing predominantly cis-4-tert-butyldicyclohexanol which is subjected to acetylation to produce the acetate ester, and the ester is distilled in the presence of alkali. Scented formulations containing I are presented.				

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:774335 CAPLUS

DN 129:343805

TI Process for the commercial production of polyhydric alcohols and glycols by aldol condensations and the Cannizzaro reaction

IN Harrison, George Edwin; Reason, Arthur James

PA Davy Process Technology Limited, UK

SO U.S., 13 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5841002	A	19981124	US 1996-723186	19960927
PRAI	GB 1995-19975	A	19950928		
OS	MARPAT 129:343805				
AB	An aldol condensation process is described for converting an aldehyde or mixture of aldehydes (e.g., isobutyraldehyde and formaldehyde) to a polyhydric alc. or glycol (e.g., neopentyl glycol). The Aldol condensation is effected in a stirred tank reactor using an alkali catalyst (e.g., sodium hydroxide) and the intermediate is converted to the desired polyhydric alc. or glycol by hydrogenation or a cross-Cannizzaro reaction step. The product is recovered and an aqueous catalyst-containing phase				
	is recycled to the Aldol condensation zone of the reactor. A portion of this catalyst recycle stream is purged to control the build up of cross-Cannizzaro products in the recycle stream. The purge stream is				

## CAS ONLINE PRINTOUT

treated electrolytically to obtain an aqueous catalyst-containing solution for recycle to the Aldol condensation zone and an effluent stream comprising volatile organic materials and being substantially free from alkali catalyst. Process flow diagrams are presented.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1998:604887 CAPLUS  
DN 129:190738  
TI Removal of oxygenated byproducts from organic hydroformylation products by product treatment with hydroxides dissolved in alcohols  
IN Preston, Herman  
PA Sasol Technology (Proprietary) Ltd., S. Afr.; Sasol Chemicals Europe Ltd.  
SO PCT Int. Appl., 14 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837045	A1	19980827	WO 1998-GB570	19980224
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	ZA 9801347	A	19990818	ZA 1998-1347	19980218
	AU 9863021	A	19980909	AU 1998-63021	19980224
PRAI	ZA 1997-1571	A	19970224		
	WO 1998-GB570	W	19980224		

AB Oxygenated organic byproducts (e.g., carboxylate ester) are removed from organic

product streams (e.g., hydroformylation-derived aldehydes or alcs.) by mixing the product with a liquid alc. (e.g., MeOH) and a hydroxide (e.g., NaOH) so as to form a salt (e.g., a sodium carboxylate salt) of the undesired organic compound which is then removed from the products by known means. The hydroxide reacts with the solvent alc. to form an intermediate alkoxide which, in turn, forms a salt with the undesired organic compound. Compared to prior-art purification techniques, this method reduces the amount

of

hydroxide used in the purification and, by use of alcs. as the process solvent in place of water, produces 1-phase systems and thus obviates the production of and disposal treatment required for process waste waters. A process flow diagram is presented.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1996:148648 CAPLUS  
DN 124:281291  
TI Skin irritation: reference chemicals data bank  
AU Bagley, D. M.; Gardner, J. R.; Holland, G.; Lewis, R. W.; Regnier, J. F.;  
Stringer, D. A.; Walker, A. P.  
CS Colgate Palmolive Co., Piscataway, NJ, 08855-1343, USA  
SO Toxicology in Vitro (1996), 10(1), 1-6  
CODEN: TIVIEQ; ISSN: 0887-2333  
PB Elsevier

## CAS ONLINE PRINTOUT

DT Journal  
 LA English  
 AB A list of 176 chems., all of high or constant purity and stable on storage, has been developed using available comprehensive in vivo rabbit skin irritation data. No new in vivo testing was conducted to qualify a chemical for inclusion in the list. The chems. were tested undiluted in vivo studies, apart from those chems. where high concns. could be expected to cause severe effects. The in vivo data were generated in studies carried out since 1981 according to OECD Test Guideline 404 and following the principles of Good Laboratory Practice. The data were obtained from tests normally using at least three rabbits evaluated at the same time, involving application of 0.5 g or 0.5 mL to the flank under semi-occlusive patches for 4 h, and in which observations were made at least 24, 48 and 72 h after removal of the patch. The chems. represent a range of chemical classes [acids, acrylates/methacrylates, alcs., aldehydes, alkalis, amines, brominated derivs., chlorinated solvents, esters, ethers, fatty acids and mixts., fragrance oils, halogenated aroms., hydrocarbons (unsatd.), inorgs., ketones, nitriles, phenolic derivs., S-containing compds., soaps/surfactants, triglycerides] and different degrees of irritancy. They are ranked for skin irritation potential on the basis of a 'primary irritation index. These chems. could be used in validation tests of promising alternatives to the in vivo rabbit skin irritation/corrosion test. This is an essential step in the progression to regulatory acceptance of alternative procedures.

L11 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:710466 CAPLUS  
 DN 121:310466  
 TI Effluent treatment in a process for producing chlorine dioxide from chloric acid  
 IN Kaczur, Jerry J.; Cawfield, David W.; Woodard, Kenneth E., Jr.; Duncan, Budd L.; Mendiratta, Sudhir K.  
 PA Olin Corp., USA  
 SO U.S., 14 pp. Cont.-in-part of U.S. 5,223,101.  
 CODEN: USXXAM

DT Patent

LA English

FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5354435	A	19941011	US 1992-999419	19921231
	US 5084148	A	19920128	US 1990-475603	19900206
	US 5223103	A	19930629	US 1991-765078	19910924
	US 5409680	A	19950425	US 1994-214534	19940318
PRAI	US 1990-475603	A3	19900206		
	US 1991-765078	A2	19910924		
	US 1992-999419	A2	19921231		

AB An aqueous solution of HClO<sub>3</sub> is reacted with a reducing agent in a ClO<sub>2</sub> generator

to produce ClO<sub>2</sub> and a spent ClO<sub>2</sub> solution containing metallic impurities. A portion of the spent ClO<sub>2</sub> solution is reacted with a basic compound (alkali metal hydroxides or carbonates) in a neutralizing zone to form a precipitate of the metallic impurities and an alkali metal chlorate solution. The precipitate of the metallic impurities is separated from the alkali metal chlorate solution and the latter is fed to an ion exchange compartment of an electrolytic cell having anode and cathode compartments and ≥1 ion exchange compartment between the electrode compartments. Electrolysis of an anolyte in the anode compartment generates H ions which pass through a cation exchange membrane into the ion exchange compartment to displace

## CAS ONLINE PRINTOUT

alkali metal ions and produce an aqueous solution of HClO<sub>3</sub> and alkali metal chlorate, which is returned to the ClO<sub>2</sub> generator. The process produces ClO<sub>2</sub> free of Cl from mixts. of oxy-chlorine species. A continuous removal of metallic impurities permits avoiding or significantly increasing the time period between generator shutdowns.

L11 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:540857 CAPLUS  
 DN 121:140857  
 TI Chemical oxidation of alkaline wastewater  
 IN Dilla, Wolfgang; Dillenburg, Helmut; Klumpe, Michael; Krebber, Hans Georg; Linke, Horst; Orzol, Detlef; Ploenissen, Erich  
 PA Solvay Deutschland GmbH, Germany  
 SO Eur. Pat. Appl., 12 pp.  
 CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 604904	A1	19940706	EP 1993-120776	19931223
	EP 604904	B1	19970528		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	DE 4244482	A1	19940707	DE 1992-4244482	19921230
	RU 2117639	C1	19980820	RU 1993-50011	19931025
	CZ 287454	B6	20001115	CZ 1993-2363	19931105
	RO 112022	B1	19970430	RO 1993-1743	19931220
	US 5445741	A	19950829	US 1993-172207	19931223
	AT 153640	T	19970615	AT 1993-120776	19931223
	CN 1089924	A	19940727	CN 1993-121212	19931225
	JP 06226272	A	19940816	JP 1993-332466	19931227
	FI 9305922	A	19940701	FI 1993-5922	19931229
	NO 9304895	A	19940701	NO 1993-4895	19931229
	BR 9305293	A	19940705	BR 1993-5293	19931229
	PL 174274	B1	19980731	PL 1993-301682	19931229
PRAI	DE 1992-4244482	A	19921230		

AB The alkaline wastewater is fed to a reactor at >15° and treated with >1 g Cl/g COD at mol. ratio OH/Cl of >1.5 and pH ≥5 for >0.25 h. Downstream treatment can include ozonization, and treatment with H<sub>2</sub>O<sub>2</sub> and activated C.

L11 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:477791 CAPLUS

DN 121:77791

TI Method for producing optical fiber having formyl groups on core surface thereof

IN Kobayashi, Takeshi; Iijima, Shinji; Shimada, Ken-ichi; Ohe, Kazue; Sakai, Yasunori

PA Ibiden Co., Ltd., Japan

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 575973	A2	19931229	EP 1993-110005	19930623
	EP 575973	A3	19940928		
	R: DE, GB, NL				
	JP 06003534	A	19940114	JP 1992-189983	19920623
	JP 3095888	B2	20001010		

## CAS ONLINE PRINTOUT

JP 06082640	A	19940325	JP 1992-254171	19920828
JP 3095903	B2	20001010		
JP 06214123	A	19940805	JP 1993-24853	19930119
JP 3095925	B2	20001010		
JP 06214124	A	19940805	JP 1993-24854	19930119
JP 3095926	B2	20001010		
US 5354574	A	19941011	US 1993-80615	19930622
PRAI JP 1992-189983	A	19920623		
JP 1992-254171	A	19920828		
JP 1993-24853	A	19930119		
JP 1993-24854	A	19930119		

OS MARPAT 121:77791

AB The title optical fiber is obtained by immersing the core surface of the optical fiber in a H<sub>2</sub>O- or lower-alc.-solution containing a 0.5-40 mM alkali metal hydroxide and a compound having formyl groups. Alternatively, the title fiber is obtained by introducing a vicinal diol group, a primary OH group, or an alkenyl group on the core surface, and then oxidizing it. Turbidity on the core surface of the fiber thus obtained is minimized, thereby reducing the light transmittance losses. The title fiber is useful for immobilization of an immunol. substance for use in an immunoassay for biomaterials. For assaying human chorionic gonadotropin (hCG), hCG was biotinylated and reacted with fluorescein-labeled avidin. A sensor chip was prepared by treating a plastic optical fiber made of polymethyl methacrylate with BuOH solution containing LiOH and 2-ethyl-5-formylpentanal and then immobilizing hCG antibody. The sensor chip was immersed in a hCG solution sample containing a given amount of fluorescein-labeled hCG, washed, immersed in a sodium carbonate solution, and irradiated with 780 and 1360 nm light. Fluorescence was measured at 518 nm. HCG could be detected up to 0.4 ng/mL. Sensors containing immobilized human pancreatic amylase were also prepared and used to detect antibodies to human pancreatic amylase.

L11 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:535524 CAPLUS

DN 115:135524

TI Method of obtaining carboxylic acids by alkaline dehydrogenation of alcohols and aldehydes

IN Szopa, Halina; Jakubowicz, Andrzej; Cwik, Ryszard; Debski, Jakub; Zuzanski, Krzysztof; Szyszko, Zygmunt

PA Zaklady Azotowe "Kedzierzyn", Pol.

SO Pol., 3 pp.

CODEN: POXXA7

DT Patent

LA Polish

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI PL 150647	B1	19900630	PL 1987-266619	19870703
PRAI PL 1987-266619		19870703		

AB Carboxylic acids are prepared by alkaline dehydrogenation of alcs. and aldehydes  
at 150-230° (especially 185-210°) with 0.5-1.2 (especially 0.7-1.0) mol equiv anhydrous or aqueous alkali metal hydroxide, using a catalyst system (0.3-3

(weight% vs. total mixture) containing a group II element and an Al salt (weight ratio

10:1 to 1:1, especially 5:1 to 3:1) added in 1 or preferably 2 portions.. In an example using 563 mL 2-ethylhexyl alc., 107 g anhydrous NaOH, 4.4 g ZnO, and 0.6 g Al salt (unspecified) at 205° for 4 h, 309 g 2-ethylhexanoic acid was obtained. A test plate in the reaction showed corrosion of 0.03 mm/yr, vs. 0.08 mm/yr and 301 g product when using CaO instead of Al salt.

## CAS ONLINE PRINTOUT

Similar results at higher corrosion levels were obtained in aqueous tests.

L11 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:25034 CAPLUS

DN 112:25034

TI Methods and apparatus for detecting an analyte of interest capable of being converted into a carbonyl-containing composition

IN Koocher, Martin; Siemers, Nathan O.

PA Crystal Diagnostics, Inc., USA

SO U.S., 17 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 4816414	A	19890328	US 1987-105138	19871002
PRAI US 1987-105138		19871002		

AB A non-instrument device, especially a film badge, provides qual. or quant. detection of a noncarbonyl-containing analyte in a gas or liquid sample by selective oxidation of the analyte into a carbonyl-containing compound followed by

controlled growth of visible crystals, the quantity of which can be measured. Suitable analytes include epoxides, alcs., olefins, arylalkanes, and aryl halides. The badge provides a sample cleaning agent (e.g., a hydrazide or hydrazine), an oxidizing agent e.g., an acid or salt), a derivatizing agent (e.g., a hydrazide or carbazide) on a solid support, and a metastable supersatd. solution for crystal growth.

L11 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:498593 CAPLUS

DN 107:98593

TI Process for the preparation of  $\alpha,\beta$ -unsaturated alcohols

IN Van de Moesdijk, Cornelis Gerardus Maria; Bosma, Marcel Antoine Robert

PA Stamcarbon B. V., Neth.

SO Eur. Pat. Appl., 7 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 219905	A1	19870429	EP 1986-201750	19861009
EP 219905	B1	19890111		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
NL 8502778	A	19870504	NL 1985-2778	19851011
JP 62093247	A	19870428	JP 1986-239446	19861009
AT 39915	T	19890115	AT 1986-201750	19861009
US 4745234	A	19880517	US 1987-86788	19870819

PRAI NL 1985-2778

US 1986-911064

EP 1986-201750

AB The title compds. R<sub>1</sub>R<sub>2</sub>C:CR<sub>3</sub>CH<sub>2</sub>OH [R<sub>1</sub>-R<sub>3</sub> = (un)substituted Ph, H, C<sub>1</sub>-10 alkyl] are prepared by liquid-phase hydrogenation of the corresponding aldehyde in the presence of a Pt-containing catalyst and an alkali metal hydroxide and/or alkali metal alkoxide promoter. The process is carried out in a two-phase system consisting of water and an incompatible organic solvent. An autoclave was charged with PhCH:CHCHO, PhMe, H<sub>2</sub>O, KOH, and 5% Pt on graphite, the reactor heated, charged with H, and operated at 20°/7000 kPa for 8 h producing 99.9% PhCH:CHCH<sub>2</sub>OH.

CAS ONLINE PRINTOUT

L11 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1974:36379 CAPLUS  
DN 80:36379  
TI Aldehydes and ketones  
IN Areshidze, Kh. I.; Chivadze, G. O.; Ioseliani, D. K.  
PA Melikishvili, P. G., Institute of Physical and Organic Chemistry  
SO U.S.S.R.  
From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1973, 50(40),  
65-6.

CODEN: URXXAF

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 400570	A1	19731001	SU 1971-1680643	19710712
PRAI	SU 1971-1680643	A	19710712		

AB Carbonyl compds. were prepared by dehydration of primary or secondary alc's.  
at 270-320° in the presence of 5% Cu-alkali metal hydroxide on  
bentonite.

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